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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/827,261	04/20/2004	Riccardo Lonati	38921/GM/pal	2400
7590 10/20/2006			EXAMINER	
MODIANO & ASSOCIATI			DONDERO, WILLIAM E	
Via Meravigli, 16			ART UNIT	
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DATE MAILED: 10/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/827,261	Applicant(s) LONATI, RICCARDO	
	Examiner William E. Dondero	Art Unit 3654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 28 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-7 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. There is no disclosure in the specification describing in a manner to enable one skill in the art how the control unit utilizes the derivative of the gram force signal to control the motor.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding Claims 1 and 5, the recitation, "only to the gram force error signal...and a signal that is the derivative with respect to time of the gram force signal," renders the claim indefinite because it is unclear as to whether applicant is inputting only one of the two signals into the controller or only both of the two signals.

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Furthermore, there is no disclosure in the Specification of inputting only one of the signals into the controller.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmodde et al. (US-6079656) in view of Kamen (NPL). Regarding Claims 1-3, Schmodde et al. disclose a device for adjusting the gram force applied to a thread 2 in knitting machines 4, comprising a control unit 24 that is adapted to drive power supply means of a motor 9 for unwinding a thread to be fed to the knitting machine, gram force sensing means 22 adapted to detect the gram force applied to the thread and to emit a gram force signal, wherein the control unit comprises means (dash/dot line from 25 to 9) adapted to emit a signal for driving the power supply means of the motor (Figures 1-2). Further regarding Claim 2, Schmodde et al. disclose the control unit comprises a PID controller which is adapted to receive in input signals (Column 4, Lines 57-67). However, Schmodde et al. are silent about comparator means adapted to compare the gram force signal with a reference signal in order to obtain a gram force error signal and the control unit adapted to drive the supply means of the power supply means of the motor according only to the gram force error signal of the thread and to a signal that is the derivative with respect to time of the gram force signal emitted by the gram force

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sensor means. However, Kamen discloses a conventional PID type controller that receives an input signal $r(t)$ into a comparator means adapted to compare the input signal with a reference signal in order to obtain a error signal $e(t)$ and the control unit adapted to drive the power supply means of a motor according only to the error signal and to a signal $\dot{r}(t)$ that is the derivative, including the sign, with respect to time of the input signal $r(t)$ emitted by a sensor means (Pages 59-66, Figure 4.6). It would have been obvious to one of ordinary skill in the art at the time of the invention to replace the controller of Schmodde et al. with the conventional PID controller of Kamen to produce accurate stable control without a steady-state error or process oscillation. Regarding Claim 4, Schmodde et al. disclose the controller is adapted to drive the motor power supply means so as to supply the motor in order to maintain a constant value of the gram force applied to the thread (Figure 3 and Column 4, Lines 57-67).

With respect to Claims 5-7, the method described in this claim would inherently result from the use of the gram force adjustment device of Schmodde et al. in view of Kamen as advanced above.

Response to Arguments

With respect to Applicant's arguments starting on page 4, line 13 to page 5, line 15, applicant argues the combination of Sainen with common knowledge in the art does not teach or suggest a device for controlling the tension of a thread based solely on the tension error signal and its derivative with respect to time. Applicant's arguments are not commensurate with the claims. Further, Applicant's arguments with respect to claims 1 and 5 have been considered but are moot in view of the new

ground(s) of rejection necessitated by Applicant's amendment adding the limitation "only" to line 8 of Claim 1 and line 5 of Claim 5.

Conclusion

Applicant's amendment, adding the limitation "only" to line 8 of Claim 1 and line 5 of Claim 5, necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William E. Dondero whose telephone number is 571-272-5590. The examiner can normally be reached on Monday through Friday 7:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathy Matecki can be reached on 571-272-6951. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

wed

A handwritten signature in black ink that reads "Kathy Matecki". The signature is written in a cursive, flowing style.

KATHY MATECKI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600